

20040806.ba v03_n685.bam.20040806

>From ???@??? Fri Aug 6 12:22:06 2004 +0000
Message-Id: <200408061721.i76HLpWh013169@sco.theporch.com>
Date: Fri, 6 Aug 2004 12:21:32 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3685

BOATANCHORS Digest 3685

Topics covered in this issue include:

- 1) Re: R-390-non a
by Richard Loken <richardlo@admin.athabascau.ca>
- 2) Re: R-390-non a
by Bob Roehrig <broehrig@aurora.edu>
- 3) Elmac Battery, was Re: Ranger
by "JAMES HANLON" <knjhanlon@msn.com>
- 4) Re: R-390-non a
by Tom Norris <r390a@bellsouth.net>
- 5) Re: R-390-non a
by Tom Norris <r390a@bellsouth.net>
- 6) Electric radio article on Eldico SSB100 ???
by john <johnmb@nc.rr.com>
- 7) SX-111 Static Stymied
by Michael N Hopkins <mnhopkins@juno.com>
- 8) Re: SX-111 Static Stymied
by "Arden Allen" <gumbear@pacbell.net>
- 9) Re: DZ D-F rx
by "Hue Miller" <kargo_cult@msn.com>
- 10) Re: R-390-non a
by "Arden Allen" <gumbear@pacbell.net>
- 11) Re: R-390-non a
by "Tom Rauch" <w8ji@contesting.com>
- 12) Re: DZ D-F rx
by WA5CAB@cs.com
- 13) Re: Elmac Battery, was Re: Ranger
by stuck in 50s <polepeeg@ba-watch.org>
- 14) Re: DZ D-F rx
by stuck in 50s <polepeeg@ba-watch.org>
- 15) Re: DZ D-F rx
by stuck in 50s <polepeeg@ba-watch.org>
- 16) Re: DZ D-F rx
by WA5CAB@cs.com
- 17) Re: Elmac Battery, was Re: Ranger
by "Tom Rauch" <w8ji@contesting.com>
- 18) Re: R-390-non a

by wb3fau@att.net
19) RE: R390 ground problems
by "James C. Garland" <4cx250b@muohio.edu>
20) Re: Elmac Battery, was Re: Ranger
by "JAMES HANLON" <knjhanlon@msn.com>
21) Re: Elmac Battery, was Re: Ranger
by "Arden Allen" <gumbear@pacbell.net>

Date: Thu, 05 Aug 2004 12:44:56 -0700 (MST)
From: Richard Loken <richardlo@admin.athabascau.ca>
Subject: Re: R-390-non a
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Message-id: <Pine.PMDF.3.95.1040805124101.541171753F-1000000@admin.athabascau.ca>
MIME-version: 1.0
Content-type: TEXT/PLAIN; charset=US-ASCII

On Thu, 5 Aug 2004, Grant Youngman wrote:

> > Bad? Do you mean open or shorted? If open, no leakage problem. If shorted
> > the circuit breaker should have opened.
>
> Bad == leaking. A leaky line bypass cap will put enough AC on the
> chassis to feel without tripping a breaker.

Yeah so? And if the chassis is properly bonded to all the metal bits and properly connected to the service entrance ground then you won't get a tingle.

Remove or replace the caps if you wish (AFAIK, the R-390 input filter is potted so you won't do that easily) but ground the damn thing regardless. Just like the manual says to do.

The R-390 bypass caps are something like 0.1mfd, they will give a tingle without leaking.

--

Richard Loken VE6BSV, Systems Programmer - VMS
Athabasca University
Athabasca, Alberta Canada
** richardlo@admin.athabascau.ca **

Date: Thu, 5 Aug 2004 13:51:04 -0500 (CDT)
From: Bob Roehrig <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: R-390-non a

Message-ID: <Pine.OSF.4.58.0408051348210.187489@mail.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Thu, 5 Aug 2004, Grant Youngman wrote:

> Bad == leaking. A leaky line bypass cap will put enough AC on the
> chassis to feel without tripping a breaker.
>
> Replace them with new, good AC rated ceramic caps.

IMO there is no excuse for units that have large value line bypasses.
Unless someone really knows why some were so large, I assume we are
talking RF bypassing and in my book you should never need anything larger
than a .01uf cap. Units that have .1 to 1 uf caps can really zap you if
not properly grounded.

Bob Roehrig
Aurora University Telecom dept.
broehrig@aurora.edu 73 de K9EUI
630-844-4898 fax 630-844-4222
"Nostalgia is a thing of the past"

From: "JAMES HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Elmac Battery, was Re: Ranger
Date: Thu, 5 Aug 2004 15:59:16 -0600
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Message-ID: <BAY4-DAV31Iv6EybfA0000006ef@hotmail.com>

Dave,

If you still have your Elmac, you might consider putting a Zener diode in
series with the 5881's cathode lead. That gets you bias without the
battery.

Jim, W8KGI

----- Original Message -----
From: "David Thompson" <thompson@mindspring.com>

To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Monday, August 02, 2004 9:48 PM
Subject: Re: Ranger 1, 1614 Substitution?

> The Elmac AF-67 used 5881's in the modulator. I always got good reports
> on
> the audio with either the Shure 444 or D-104 (as long as the 21V bias
> battery was good).
> Dave K4JRB
>

Mime-Version: 1.0
Message-Id: <p0610050abd3860678fee@[10.0.1.2]>
Date: Thu, 5 Aug 2004 17:16:56 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Tom Norris <r390a@bellsouth.net>
Subject: Re: R-390-non a
Cc: boatanchors@theporch.com
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

> > Bad? Do you mean open or shorted? If open, no leakage problem.
> If shorted
>> the circuit breaker should have opened.
>
> Bad == leaking. A leaky line bypass cap will put enough AC on the
> chassis to feel without tripping a breaker.
>
> Replace them with new, good AC rated ceramic caps.
>
> Grant/NQ5T

Trouble is the caps in the 390 and 390A are potted
and inside a hermetically sealed can, in the 390 that
can is integral to the power connector. In the 390A
it is not. Under real world i.e. not in the field in a
military shelter in a rough environment, the RFI
filters on either are not really needed. The 390
connector can be separated with difficulty and the
radio operated sans filter. The whole filter/connector
assembly can be changed out with the DC connector
from any number of mobile sets that were in use
at the time. I think I replaced the power connector
on my old 390 with a DC connector from a PP-112
power supply - it's the same connector.

Tom

Mime-Version: 1.0
Message-Id: <p0610050bbd38638e4d0b@[10.0.1.2]>
Date: Thu, 5 Aug 2004 17:23:23 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Tom Norris <r390a@bellsouth.net>
Subject: Re: R-390-non a
Cc: boatanchors@theporch.com
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

Indeed Bob

I'm not sure what size cap the 390's use
in those sealed filters, but my GRR-5 has
.25 caps on either side of the AC line!

Tom NU4G

>On Thu, 5 Aug 2004, Grant Youngman wrote:
>
>> Bad == leaking. A leaky line bypass cap will put enough AC on the
>> chassis to feel without tripping a breaker.
>>
>> Replace them with new, good AC rated ceramic caps.
>
>
>IMO there is no excuse for units that have large value line bypasses.
>Unless someone really knows why some were so large, I assume we are
>talking RF bypassing and in my book you should never need anything larger
>than a .01uf cap. Units that have .1 to 1 uf caps can really zap you if
>not properly grounded.
>
>
> Bob Roehrig

Message-Id: <3.0.3.32.20040805201827.01ff2120@pop-server.nc.rr.com>
Date: Thu, 05 Aug 2004 20:18:27 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@nc.rr.com>
Subject: Electric radio article on Eldico SSB100 ???
Mime-Version: 1.0
Content-Type: multipart/mixed; x-avg-checked=avg-ok-3CDC47B9;
boundary="====5856684E===="

--====5856684E====

Content-Type: text/plain; x-avg-checked=avg-ok-3CDC47B9; charset=us-ascii
Content-Transfer-Encoding: 8bit

Anyone know what issue this was in?

Don Buskas index seems to be the latest victim of QSL net, as it refuses to load.

Thanks for any help. I recall the article was written by fellow New Mexican Jim Hanlon (Hi Jim!)

73

John K5MO

-----5856684E-----

Content-Type: text/plain; charset=us-ascii; x-avg=cert; x-avg-checked=avg-ok-3CDC47B9

Content-Disposition: inline

Checked by AVG anti-virus system (<http://www.grisoft.com>).

Version: 6.0.727 / Virus Database: 482 - Release Date: 7/26/04

-----5856684E-----

To: Old Tube Radios <boatanchors@theporch.com>

Date: Thu, 5 Aug 2004 19:47:36 -0500

Subject: SX-111 Static Stymied

Message-ID: <20040805.194737.-455655.0.MNHopkins@juno.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

From: Michael N Hopkins <mnhopkins@juno.com>

Just now, I fixed the fifth discovered case of random static in a Hallicrafter's SX-111. I post as above to commemorate that and to get the repair Googleable. It might well work on an SX-101 or any other of the Hallicrafters rigs with the 50kc area second IF.

Briefly, there is a pi net filter off the detector consisting of two 220 pf caps and a 47K resistor. If you dig out those dog bones near the back and put in new ones, you get rid of the random static. It's an amazing difference. The parts must not have been spec'ed for 50 year service.

I write of this fix particularly because it is a "tough dog" to diagnose. Indeed, when I asked for help on line I received about a dozen credible approaches. I tried them all but finally found it with another ham and by dabbing alcohol on all the components around the triple triode 6BJ7 while studying the diagram.

I wish we had a customary place to post specific fixes. An archive of observations would let us identify "usual suspects" like these and get a lot more old rigs running a lot quicker. My Heath signal tracer is fast, but this 1.15G AMD is a lot faster.

Michael, MNHopkins@JUNO.com, ab5L
Student of Tecraft, ICM and 6 Meter's Golden Age: 1956-58

Message-ID: <004401c47b5c\$e5b1d0e0\$2ae47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: SX-111 Static Stymied
Date: Thu, 5 Aug 2004 19:27:15 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>My Heath signal tracer is fast,
but this 1.15G AMD is a lot faster.

Yeah, Mike, but digging the problem out of the receiver is a lot more educational than digging it out of a myriad of "fixes" on a website. May even be easier too. Can't beat the sytem of BA nattering to get things done!

Arden

From: "Hue Miller" <kargo_cult@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DZ D-F rx
Date: Thu, 5 Aug 2004 01:07:46 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Message-ID: <BAY5-DAV23KpRcTCi90000001466@hotmail.com>

> The DZ may be the 'secret Navy DF' carried by A. Earhart
> Marty

Don't get carried away, Marty. #1, At Lae, before takeoff on the fatal flight, she tried to test df on the Lae Aeradio, this in the 6000 kcs band. #2 Nearing Howland Island, she tried to df the USCG ship Itasca, transmitting on 7500 kcs. She could hear them, but reported not being able to get null.

(DZ does not tune above ? 1500 ? kcs.)

#3 There's a much known photo of her with a Bendix representative, looking at a df adapter, loop unit that looks a great deal like the Navy's DU. The early versions of the DU tuned up to 8000 kcs or so; the ones you see most often, and the WW2 issue ones, ended at 1500 kcs. Looks like HFDF for aircraft turned out to be too flakey. No one, i believe, has come up with a real powerful explanation

of why she could not null on these last 2 hf df attempts.

I have this earlier HF loop antenna and so does at least one other member of this listgroup. I do want to try it out on HF DF but the recent move, i think, has set the already backlogged project list, back years.

-Hue Miller

Message-ID: <002901c47b62\$6c1ba8e0\$2ae47443@KB6NAX>

From: "Arden Allen" <gumbear@pacbell.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: R-390-non a

Date: Thu, 5 Aug 2004 20:06:47 -0700

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Does anybody remember their capacitor theory? You know, AC goes "through" a capacitor and DC does not? It's that thing referred to as *capacitive reactance*.

Today's homework assignment is to calculate the current that flows through a capacitor of a known capacitance, for a given voltage and frequency. Then on to Kirchoff's law as applied to capacitors in series. Next, identify the capacitive voltage divider and determine the voltage applied to the chassis of the notorious zapping receiver. And finally, by finding the network impedance, determine the magnitude of current flowing through the hapless boatanchorphile. Assume a body resistance of 10,000 ohms.

Sarcasm aside, the subject of electrical safety is not to be taken lightly, namely, knowing when bad advice is being offered. Back to your books...

Arden Allen
KB6NAX

Message-ID: <005301c47b64\$46409480\$6801a8c0@akorn.net>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: R-390-non a
Date: Thu, 5 Aug 2004 23:20:06 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

The real problem with all of this isn't that a .1UF up capacitor is too big, it is that the ground is too poor.

There are many things that can fail inside a radio. You may not have just 60VAC from the capacitors on the chassis, you could have a lot more!

If you get a primary to HV secondary short in the transformer or wiring someplace, the chassis can actually be elevated to 120VAC plus the fault point to chassis voltage difference. I've seen equipment with a few kV on the chassis, and not just with a few mA of current limited by a large series reactance!

The real problem is poor grounding and poor safety precautions. Change the bypasses if you like, but the tingle is a warning something much more important needs corrected.

73 Tom

From: WA5CAB@cs.com
Message-ID: <154.3bb60305.2e4453c8@cs.com>
Date: Thu, 5 Aug 2004 23:23:52 EDT
Subject: Re: DZ D-F rx
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_154.3bb60305.2e4453c8_boundary"

--part1_154.3bb60305.2e4453c8_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Hue,

Correct. DZ and DZ-a tune 15-70 KC and 100-1500 KC. Ref. RCA Preliminary

IB-38035 dtd 30 June 1939 w/DZ-a Supplement IB-38035-a (same date). (DZ-a was 24 VDC version with inverted antenna mounting for use in Lighter-Than-Air craft).

In a message dated 8/5/2004 9:44:39 PM Central Daylight Time,
kargo_cult@msn.com writes:
> (DZ does not tune above ? 1500 ? kcs.)

Robert Downs - Houston
<<http://www.wa5cab.com>> (Web Store)
<wa5cab@cs.com> (Primary email)
<wa5cab@houston.rr.com> (Backup email)

--part1_154.3bb60305.2e4453c8_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_154.3bb60305.2e4453c8_boundary--

Date: Fri, 6 Aug 2004 08:11:03 -0400 (EDT)
From: stuck in 50s <polepeeg@ba-watch.org>
Message-Id: <200408061211.i76CB3hZ004518@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Elmac Battery, was Re: Ranger

```
} Dave,
}  
{ If you still have your Elmac, you might consider putting a Zener diode in  
{ series with the 5881's cathode lead. That gets you bias without the  
{ battery.  
{  
{ Jim, W8KGI
```

Prima facie a good idea but since cathode bias, it lowers the plate-cathode voltage. Audio output suffers.

Could be there's plenty of excess capacity in Elmac's modulator ckt & there's no consequence. But I've never heard of a test

A teeny tripler on the 6.3VAC filament line is a no-impact battery work-around.

Marty AA4RM

Date: Fri, 6 Aug 2004 09:31:45 -0400 (EDT)
From: stuck in 50s <polepeeg@ba-watch.org>
Message-Id: <200408061331.i76DVjM2005173@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DZ D-F rx

} Ref. RCA Preliminary
} IB-38035 dtd 30 June 1939 w/DZ-a Supplement IB-38035-a (same date).
} (DZ-a was } 24 VDC version with inverted antenna mounting for use in
} Lighter-Than-Air craft).

DZ-2 was also 24V & Ref. RCA Preliminary IB-38145-2 dtd 29 June 1939

It was for regular airplanes

And the old punch line "how do it know" applies to a rx perceiving an upside-down antenna.

Could it be the big-pin tubes? Living in a blimp?

Date: Fri, 6 Aug 2004 09:47:50 -0400 (EDT)
From: stuck in 50s <polepeeg@ba-watch.org>
Message-Id: <200408061347.i76Dlovs005302@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: DZ D-F rx

To: boatanchors@theporch.com, kargo_cult@msn.com
Subject: Re: DZ D-F rx

} At Lae, before takeoff on the fatal flight,
} she tried to test df on the Lae Aeradio, this in the 6000 kcs band. #2 Nearing
} Howland Island, she tried to df the USCG ship Itasca, transmitting on 7500
} kcs. She could hear them, but reported not being able to get null.

Hue I just knew you'd perk up on this AND I remember reading the gist in the 1961 book by the CBS newsman.

I figured this was all disinfo because no-one would try df on hf stations at a distance. Problem spelled S-K-I-P.

I've been trying to get SAQ @ 17kcs on a DZ-2 for several years. No trouble getting TV sets @ 15.7 kcs tho. In fact, a gud calibrator

Hey speaking of Bendix. The ubiquitous MN-26. I've never looked to see if it had a 'sense antenna' input. Don't think it was assigned a GI-id either.

Is the dual-null MN-26 & navigator innability to do 'turn & compare*' the reason Lady-b-Good B24 had to stop in Sahara?

The mechanically/electrically elegant SCR-269's BC-433 is clearly a stretch of some predecessor w/o the loop-twister... and perhaps the null-generator. Wonder if that a Bendix baby.

Signed

A/RDF Puzzlement Central

*saw 70s flight tips paperback that told you how to do this with a pocket transistor. I've gotten 'deer in headlights' stares fm comm'l pilots when subject intro'd.

From: WA5CAB@cs.com
Message-ID: <147.303a987a.2e44e6b4@cs.com>
Date: Fri, 6 Aug 2004 09:50:44 EDT
Subject: Re: DZ D-F rx
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_147.303a987a.2e44e6b4_boundary"

--part1_147.303a987a.2e44e6b4_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

No, the part of the loop controller inside the gondola is longer so that it wouldn't be on the floor. Wonder what happened to the DZ-1? If the DZ (DZ-0) was 12 volt, then the DZ-1 should have been the 24 volt model.

In a message dated 8/6/2004 8:34:46 AM Central Daylight Time, polepeeg@ba-watch.org writes:
> And the old punch line "how do it know" applies to a rx perceiving an
> upside-down antenna.

>
> Could it be the big-pin tubes? Living in a blimp?

Robert Downs - Houston
<<http://www.wa5cab.com>> (Web Store)
<wa5cab@cs.com> (Primary email)
<wa5cab@houston.rr.com> (Backup email)

--part1_147.303a987a.2e44e6b4_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_147.303a987a.2e44e6b4_boundary--

Message-ID: <00ab01c47bbc\$68553820\$6801a8c0@akorn.net>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Elmac Battery, was Re: Ranger
Date: Fri, 6 Aug 2004 09:50:59 -0400
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> Prima facie a good idea but since cathode bias, it lowers
the plate-cathode
> voltage.

.....and even more important in many circuits the screen
voltage, and this also impacts linearity. Probably OK, but
I'd opt for the tripler. It could be made pretty small since
it only has to supply bleed-off current.

73 Tom

From: wb3fau@att.net
To: Old Tube Radios <boatanchors@theporch.com>

Cc: "Arden Allen" <gumbear@pacbell.net>,
Old Tube Radios <boatanchors@theporch.com>
Subject: Re: R-390-non a
Date: Fri, 06 Aug 2004 15:26:51 +0000
Message-Id:
<080620041526.10.4113A339000939E70000000A21603759649A0E00CC0D99@att.net>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="NextPart_Webmail_9m3u9jl4l_10_1091806011_0"

--NextPart_Webmail_9m3u9jl4l_10_1091806011_0
Content-Type: text/plain
Content-Transfer-Encoding: 8bit

Gentlemen[some of you] thanks for your timely response on my 390. Been a bit busy here, so I did not respond back right away. I got the answers I expected- a broad variety. I suspect the line bypasses are quite leaky. i did not suspect my dedicated earth ground . Installed over 10 years ago, for the hamshack., it is an independant copper plated rod driven into the earth 8 feet. I must confess, I have not seen the clamp connection in 10 years, so will check it for corrosion and tight connections. When i last tested it- I put a meter between it and the hot side of the 120 volt AC line and measured a full 120 volts. A quick check recently - measured 60 volts between the earth and ground on my 120volt receptacle. So I suspect a bad or missing ground somewhere here? Yes, I did in fact get a nice hit off the 390, as I was barefooted and tried to turn on the receiver. Using a BW 5100 transmitter with it, I also get a nice hit if I pick up my D104, and touch the 390. I will report my findings. Your inputs appreciated- as most of you are a real storehouse of knoledge - thanks Russ.

----- Original message from "Arden Allen" : -----

> Larry sez:
>
> > I submit that those caps at the line input are bad, and that the ground is
> > not the culprit.
>
> Bad? Do you mean open or shorted? If open, no leakage problem. If shorted
> the circuit breaker should have opened.
>

ground rod. An unknowing graduate student started to open the room's door and almost got electrocuted. Subsequent examination showed that the power line filters were shunting the 240V line with 2 microfarad capacitors. Ouch.

73,

Jim W8ZR

From: "JAMES HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Elmac Battery, was Re: Ranger
Date: Fri, 6 Aug 2004 10:20:09 -0600
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Message-ID: <BAY4-DAV16oGdK08FNp00002f32@hotmail.com>

Marty,

I've done this mod on my AF-67 and AF-68, and they both have plenty of audio afterwards. A tripler on the filament line would work as well, but it would require more parts.

Jim

----- Original Message -----
From: "stuck in 50s" <polepeeg@ba-watch.org>
To: <boatanchors@theporch.com>; <knjhanlon@msn.com>
Sent: Friday, August 06, 2004 6:11 AM
Subject: Re: Elmac Battery, was Re: Ranger

> } Dave,
> }
> } If you still have your Elmac, you might consider putting a Zener diode
> in
> } series with the 5881's cathode lead. That gets you bias without the
> } battery.
> }
> } Jim, W8KGI
>
> Prima facie a good idea but since cathode bias, it lowers the
> plate-cathode
> voltage. Audio output suffers.
>

> Could be there's plenty of excess capacity in Elmac's modulator ckt &
> there's no consequence. But I've never heard of a test
>
> A teeny tripler on the 6.3VAC filament line is a no-impact battery work-
> around.
>
> Marty AA4RM
>

Message-ID: <002601c47bd9\$a4e92900\$8de47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Elmac Battery, was Re: Ranger
Date: Fri, 6 Aug 2004 09:47:27 -0700
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

> A teeny tripler on the 6.3VAC filament line is a no-impact battery work-
> around.

That's a step in the right direction but my approach would be to use a small
value capacitor to feed a shunt rectifier from the B+ winding. Less parts.
With the capacitive reactance at the right value the current to the
rectifier is no more than needed to drive the bias supply and there is no
heat dissipation problem as with using a resistor. Just be sure the cap has
a high enough voltage rating.

Arden Allen
KB6NAX

End of BOATANCHORS Digest 3685
